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PATENT APPLICATION
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION OF)	
KARL-HEINZ ALEKSANDER)	GROUP NO.: 1713
OSTOJA-STARZEWSKI ET AL)	
SERIAL NUMBER: 10/667,711)	EXAMINER: C. CAIXIA LU
FILED: SEPTEMBER 22, 2003)	
TITLE: TRANSITION METAL COMPOUNDS)	
HAVING A DONOR-ACCEPTOR)	
INTERACTION AND A SPECIFIED)	
SUBSTITUTION PATTERN)	

DECLARATION

I, KARL-HEINZ ALEKSANDER OSTOJA-STARZEWSKI, a resident of Rösrath, Germany do hereby declare:

that I am a chemist having studied at the University of Frankfurt am Main;

that I received the degree of doctor phil. nat. at the University of Frankfurt am Main in the year of 1977; and the degree of doctor rer. nat. habil. at the University of Bayreuth in the year of 1998, where I am Professor since 2005.

that since 1981 I am an employee of Lanxess Deutschland GmbH (formerly Bayer MaterialScience AG, formerly Bayer AG, Leverkusen, Germany), and work in the department of HRD-Project Center thereof;

that I am a senior research chemist having 25 years experiences in the field of metallocene chemistry, including the testing and evaluation of compounds;

that I am one of the inventors of the above-identified application;

that experiments were performed under my supervision so as to compare particular examples disclosed in the above identified patent application to example experiments set forth in U.S. Patent No. 6,353,064 B1, wherein the experimental reactions were performed under essentially identical conditions to those set forth in U.S. Patent No. 6,353,064 B1, except that the TIBA co-catalyst used therein was replaced by a MAO co-catalyst so as to determine whether an increase in molecular weight would result;

that the following results and comparisons were obtained:

1. Ethylene Polymerization

The metallocene in example 1 of US 6,353,064 is a donor-acceptor metallocene but without a fluorenyl ligand and without alkyl or aryl substituents on the acceptor moiety. The High Density Polyethylene (HDPE) formed at 45 – 54 °C has a viscosity average molecular weight of 402 kg/mol.

When MAO is used as the single co-catalyst at 80 °C the viscosity average molecular weight of the HDPE formed is only 214 kg/mol.

This is comparable to example 8 of the present Application (Serial No. 10/687,711), where the PE formed at ca. 80°C has a viscosity average molecular weight of 2244 kg/mol.

2. Propylene Polymerization

The metallocene in example 2 of US 6,353,064 is a donor-acceptor metallocene but without a fluorenyl ligand and without alkyl or aryl substituents on the acceptor moiety. The elastomeric polypropylene formed has an intrinsic viscosity of only 0.79 dl/g.

When MAO is used as the single co-catalyst the intrinsic viscosity drops to a value of 0.11 dl/g, which corresponds to a viscosity average molecular weight of only 7 kg/mol.

3. Ethylene-Propylene-ENB Terpolymerization

The metallocene in example 3 of US 6,353,064 is a donor-acceptor metallocene but without a fluorenyl ligand and without alkyl or aryl substituents on the acceptor moiety. The EPDM elastomer formed has an intrinsic viscosity of 1 dl/g.

When MAO is used as the single co-catalyst the intrinsic viscosity drops to an a value of 0.47 dl/g, which corresponds to a viscosity average molecular weight of only 21 kg/mol.

This is comparable to example 24 of the present Application (Serial No. 10/667,711), where due to the improved metallocene structure the EPDM formed has an intrinsic viscosity of 7.01 dl/g and a viscosity average molecular weight of 949 kg/mol.

4. Ethylene-Hexene Copolymerization

The metallocene in example 9 of US 6,353,064 is a donor-acceptor metallocene but without a fluorenyl ligand and without alkyl or aryl substituents on the acceptor moiety. The EHM elastomer (ethylene-hexene copolymer) formed has an intrinsic viscosity of 1.22 dl/g.

When MAO is used as the single co-catalyst the intrinsic viscosity drops to an even lower value of 0.68 dl/g.

This is comparable to example 9 of the present Application (Serial No. 10/667,711), where due to the improved metallocene structure the EHM formed has an intrinsic viscosity of 3.74 dl/g.

The undersigned Declarant declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Signed at Leverkusen, Germany, this 8 day of June 2006

Aleksander Ostoja-Starzewski

ALEKSANDER OSTOJA-STARZEWSKI